ABSTRACT OF DISCLOSURE

Optical fiber array apparatus comprising housing front mask having a matrix of fiber seating openings each opening having one or more side walls. An optical fiber extends through each opening and means presses the fiber side surface into engagement with the one or more side walls to precisely position and secure the fiber. Bonding material then fills all voids in and around the opening. In one embodiment, a clamping wafer behind the front mask moves to clamp the fibers to the front mask opening walls. In another, the front mask defines flexing arms with distal ends that clamp fibers to opening walls and in yet another elongated flexible members lie along front mask slots to clamp fibers in openings that communicate into the slots.